

AAAI Report 1512 AAAI Project 88018

# QUARTERLY NOISE MONITORING AT HOLLYWOOD BURBANK AIRPORT FIRST QUARTER 2017

MAY 2017

Prepared for:



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MAY 2017

Prepared for:

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# QUARTERLY NOISE MONITORING AT HOLLYWOOD BURBANK AIRPORT FIRST QUARTER 2017

# I. INTRODUCTION

In compliance with the California Noise Standards (Reference 1) and the current variance from certain provisions of the Standards (Reference 2), the operator of the Hollywood Burbank Airport is required to perform noise monitoring in the vicinity of the airport for the purpose of establishing a noise impact boundary. The Noise Standards currently specify a community noise equivalent level (CNEL) of 65 dB for the noise impact boundary<sup>1</sup>. The airport is required to provide, each quarter, an updated annual noise impact contour based on measurement data over the four preceding quarters.

A permanent noise monitoring system became operational in April 1980 and, with brief interruption for system expansion, maintenance, and program changes, has been operational since that time. Of the original nine noise monitor sites, eight have remained unchanged since 1980. The monitor at site 8 was removed in 1997 and replaced by a monitor at site 18. Two sites were added east of the airport in late 1980. Four sites were added south of the airport in January 1986 in response to the requirement to determine the 65 dB contour. Three more locations were added in February 1997. Two of these, identified as 16 and 17, are south of the airport, and one, 18, is to the west. These locations were added to permit monitoring closer to the 65 dB contour. The noise monitoring computer at the airport was replaced in August 1995.

The Hollywood Burbank Airport Noise Monitoring System was modernized and augmented in late December 2012 by replacing the noise and flight track matching software, the noise monitoring hardware, and by adding sites 19, 20, 21, and 22 to allow closer monitoring to the current 65 dB CNEL contour. The old site 17 was removed as redundant with site 15, so the updated noise monitoring system contains 20 permanent microphone locations.

This report describes the data acquired by the monitoring system during the first quarter of 2017. Noise impact boundaries for 65 dB and 70 dB are shown based on these measurements and measurements obtained during the second, third and fourth quarter 2016 reported in

<sup>1</sup> Prior to January 1, 1986, a CNEL of 70 dB defined the noise impact boundary.



# BURBANK AIRPORT - 70 CNEL CONTOUR for 1st QUARTER 2017



# BURBANK AIRPORT - 65 CNEL CONTOUR for 1st QUARTER 2017

References 3, 4 and 5. Figure 1 shows the 70 dB contour and Figure 2 shows the 65 dB contour, based on the measured noise data.

# **II. NOISE MEASUREMENTS**

# A. <u>Sites</u>

Aircraft noise levels were monitored at 15 locations prior to February, 1997. Two sites were added in February 1997, and equipment at one site west of the airport was moved to a new location. In July 2003, the monitor station at site 9 was moved 105 feet further west to accommodate new construction at the Fire Station. In December 2012, four new monitor sites were added and one existing site removed as redundant, leaving a total of twenty noise monitoring locations. The noise monitor sites are shown in Figure 3.

# B. Noise Measurement Equipment

Each of the microphone locations uses an identical set of equipment connected to a central control unit. The noise level at each site is stored locally and transmitted by broad band connection to the central site once per 24-hour period. The automated noise and flight track monitoring software processes the data to produce (among other measures) the CNEL at each site. Appendix A provides a brief description of the system.

# C. Noise Data

During this quarter, there were occasional power interruptions and monitor equipment failures, causing some loss of data. Tables 1, 2, and 3 show the aircraft CNEL measured at each monitoring site for each day of the quarter. The dashed lines indicate days for which a monitor was operating for less than 94% of the time. The data for these days was excluded from the averages.



**BURBANK AIRPORT - NOISE MONITOR LOCATIONS** 

## D. Operational Data

Departure and arrival schedules are provided by the airlines. In addition, operations of air carrier, general aviation and rotary-wing aircraft are determined from the airport's computerized flight tracking system.

## **III. MEASURED NOISE DATA**

Daily CNEL values for the noise monitoring system are listed in Tables 1, 2, and 3. Table 4 lists the average values for each quarter together with the annual average.

# **IV. SCHEDULED AIRLINE AND AIR TAXI OPERATIONS**

The scheduled air carrier and commuter operations for the quarter are shown in Table 5.

# V. CNEL CONTOUR DEVELOPMENT

The contours shown in Figures 1 and 2 are based upon computer-generated "master" contours which are adjusted to reflect the monitoring data. Beginning with the second quarter 2009, noise contours are developed using the master contours produced by Version 7.0 of the Integrated Noise Model (INM), a sophisticated aircraft noise modeling program developed for the Federal Aviation Administration. Inputs to the program consist of aircraft types and performance data, flight paths, numbers of operations, and day/evening/night distribution of flights. The program calculates CNEL values at equally spaced grid points and produces CNEL contour lines at 1 dB intervals. The annual average CNEL values at each site were marked at the appropriate locations on the contour map and the locations of the 65 and 70 dB CNEL contours were determined in the vicinity of each measuring point. These points were then joined following the general shape of the computed contours.

The master contours used in developing the contours for this quarter are based on operations for the 12-month period from January 1, 2014 through December 31, 2014. These replaced the previous master set of CNEL Contours which were based on operations for the 12-month period from July 2008 through June 2009.

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#### TABLE 1. CNEL VALUES FOR JANUARY 2017

#### RMS NUMBER

Date	1	2	3	4	5	6	7	9	10	11	12	13	14	15	16	18	19	20	21	22
01/01/17	61.6	57.3	58.4	54.8	54.3	45.9	52.1	61.9	53.7	49.1	53.4	58.7	55.6	58.7	59.1	61.4	61.4	62.9	64.8	56.1
01/02/17	63.7	60.1	61.3	57.1	58.4	42.2	48.7	62.8	55.1	56.5	55.9	60.5	57.9	61.0	62.4	62.4	64.0	66.0	67.8	54.0
01/03/17	64.3	61.2	63.0	59.0	57.9	51.2	56.7	62.0	54.9	51.7	58.1	60.5	59.8	61.8	64.7	61.3	64.4	67.5	69.1	61.3
01/04/17	63.0	59.3	60.6	57.0	53.2	48.3	48.7	62.6	52.1	50.9	55.1	59.4	57.4	60.7	61.6	62.9	63.8	65.2	67.1	55.9
01/05/17	64.4	60.5	61.8	59.2	57.9	47.2	47.7	64.2	55.3	53.5	55.7	60.3	58.1	60.8	62.9	63.7	63.9	66.4	68.1	51.2
01/06/17	62.4	60.3	61.1	52.4	54.6	55.1	58.9	62.8	54.9	51.8	55.3	59.0	57.8	60.0	62.3	62.6	63.1	65.7	67.0	64.2
01/07/17	61.2	57.6	58.1	48.9	51.3	42.2	46.3	59.1	54.9	52.9	54.5	59.3	55.0	57.5	59.9	58.5	61.4	63.7	65.5	51.4
01/08/17	60.7	58.3	58.8	58.9	57.1	51.1	52.4	61.6	51.1	46.4	52.2	57.2	55.9	58.1	60.1	61.4	61.3	63.4	65.3	56.2
01/09/17	63.7	60.9	61.8	57.8	55.2	50.2	48.3	62.4	53.7	53.1	55.3	59.5	58.0	61.5	62.8	61.9	64.3	66.5	68.1	57.3
01/10/17	63.5	60.7	61.3	57.9	54.1	49.4	49.9	62.9	55.7	52.2	55.9	60.1	58.1	61.2	62.4	62.6	64.2	66.0	67.7	53.0
01/11/17	64.0	61.6	62.3	59.9	56.5	49.1	49.9	63.2	55.8	51.4	55.5	60.2	59.0	61.5	63.4	62.7	64.8	67.0	68.6	56.0
01/12/17	65.4	61.0	61.8	61.2	57.2	51.4	49.4	64.5	55.1	53.3	56.3	60.1	58.5	61.1	63.4	64.1	64.4	66.5	68.3	53.0
01/13/17	62.5	60.7	61.9	56.2	55.3	51.3	49.4	63.2	54.9	54.7	56.4	58.2	57.9	60.9	63.0	62.8	64.2	66.3	68.0	56.6
01/14/17	5/./	56.0	57.9	58.7	57.6	56.7	52.7	56.5	52.7	49.6	51.9	54.4	54.3	56.8	60.6	57.6	59.6	62.1	64.3	58.1
01/15/17	60.8	58.2	59.3	59.8	58.3	53.7	54.8	61.4	47.8	48.5	53.6	57.2	55.7	58.9	60.5	60.6	61.8	63.6	65.4	62.0
01/16/17	62.3	60.1	61.5	58.0	60.8	54.2	57.1	61.1	52.5	52.9	54.9	58.6	57.6	60.7	62.8	60.7	63.7	66.0	67.8	61.8
01/1//1/	62.0	60.3	60.8	57.3	59.0	56.5	59.6	60.2	55.2	54.9	55.3	58.0	58.0	59.0	62.5	60.2	62.4	65.5	66.8	63.9
01/18/17	62.3	59.1	60.0	56.9	55.2	49.3	52.7	64.4	53.8	53.6	56.1	58.3	57.0	60.2	61.3	63.9	63.3	64.6	66.7	58.6
01/19/17	63.2	61.2	61.7	57.1	56.6	51.3	50.9	63.5	54.4	53.7	54.7	58.5	58.9	60.1	63.9	63.5	63.4	66.2	67.7	54.7
01/20/17	/1.0	60.9	61.7	60.3	59.4	57.5	56.6	63.5	55.5	55.5	55.9	58.8	58.7	60.0	63.7	63.4	63.2	65.9	67.2	62.1
01/21/17	60.2	57.9	59.1	57.1	57.3	58.4	56.9	57.9	55.9	56.2	54.8	56.3	55.6	56.8	59.8	58.4	59.5	63.1	64.4	65.3
01/22/17	76.3	59.3	59.1	61.2	58.4	43.8	47.4	63.5	52.7	49.4	55.6	60.4	56.0	60.0	59.6	63.0	62.9	64.6	66.6	48.1
01/23/17	62.9	61.2	61.6	56.4	51.5	57.8	55.6	62.4	50.0	55.3	57.2	57.9	58.9	59.9	63.7	62.0	63.Z	05.7	66.9	60.3
01/24/17	61.8	59.4	60.6	54.7	55.1	51.9	52.7	62.1	51.4	49.8	55.8	58.8	57.1	60.0	61.5	62.0	62.9	64.9	66.5	59.0
01/25/17	61.1	58.9	60.4	53.2	55.0	54.5	54.8	61.7	53.9	52.8	56.8	65.1	50.8	58.9	60.9	01.0	61.7	64.6	65.8	60.8
01/26/17	62.2	59.6	60.7	59.Z	57.5	57.2	59.5	60.7	52.3	53.4	57.0	50.8	57.4	59.2	62.5	61.3	62.6	05.Z	66.7	65.0
01/27/17	59.1	55.3	57.5	61.0	60.9	62.5	59.1	58.4	52.0	51.5	55.5	53.8	54.7	55.2	62.4	57.9	58.0	62.0	63.6	65.Z
01/20/17	5/.b	55.3	50./	57.0	55.4	51.2	49.2	00.1	5Z.9	55.4	52.5	53.2	5Z.9	55.2	50.7	50.1	0.00	01.2	02.8	5/.0
01/29/17	59.1	50.8	51.9	09.3	00.5	50.0	55.0	500.3	49.9	53.8	52.2	04.4	54.1	51.1	59.Z	59.0	00.0	02.7	04.4	00.0 E0.0
01/30/17	59.5 62.5	51.5	50./	03.0	01.3	50.Z	03.0	00./	01.0	52.1	53.1	50.9	00.3	00.0	61.0	00.Z	01.1	03.1	0.00	0.00
01/31/17	0Z.C	ວຯ.ວ	59.5	5ð.2	JØ./	54.5	00.0	01.1	<b>04.4</b>	51.1	55. I	59.0	JO.4	0.00	01.0	00.9	02.7	0.00	00.3	04.4

### TABLE 2. CNEL VALUES FOR FEBRUARY 2017

#### RMS NUMBER

5 6 7 9 10 11 12 13 14 15 16 18 19 20 21 Date 1 2 3 4 02/01/17 63.2 60.6 62.0 60.8 61.1 54.5 58.5 60.5 56.0 56.3 57.7 59.0 58.3 59.7 63.6 59.8 62.9 66.2 68.0 63.3 02/02/17 61.7 59.0 59.4 52.8 55.4 52.4 53.3 62.6 53.2 52.1 54.2 58.6 56.3 59.4 61.1 61.8 62.6 64.4 66.1 58.0 02/03/17 64.2 60.9 61.6 56.7 54.9 45.6 57.6 63.3 54.7 53.8 56.4 59.1 58.3 61.0 63.4 63.1 64.0 67.4 69.6 52.4 02/04/17 60.1 57.7 59.1 53.3 55.4 42.8 40.2 58.9 51.6 53.2 53.0 56.9 55.6 58.5 60.0 58.4 61.2 63.1 64.8 44.3 02/05/17 59.7 57.1 57.4 51.5 54.1 33.1 42.7 60.4 49.5 48.0 51.9 56.3 54.0 57.5 58.6 59.6 60.8 62.6 64.5 37.2 02/06/17 65.4 58.9 59.1 60.8 57.9 47.1 48.4 62.8 54.5 52.5 55.9 60.3 56.1 61.5 60.3 62.3 62.9 64.3 66.2 52.5 02/07/17 63.4 59.3 59.6 60.1 55.0 51.0 52.9 63.6 53.7 52.8 55.0 59.5 56.5 60.9 61.3 63.3 63.3 65.1 66.9 55.3 02/08/17 61.9 60.3 61.4 54.9 54.2 51.4 53.0 63.1 53.5 52.0 54.4 57.5 58.0 61.7 62.9 62.7 63.1 65.8 67.3 63.1 02/09/17 62.7 60.7 62.4 57.7 57.0 53.4 54.3 63.4 53.6 54.1 55.8 59.1 58.6 62.7 63.6 63.0 64.4 66.7 68.3 59.7 02/10/17 64.3 61.9 63.0 57.8 56.1 53.0 54.6 63.7 56.3 54.5 56.1 59.4 59.5 62.5 64.2 62.8 65.2 67.6 69.3 59.3 02/11/17 59.9 56.8 57.9 51.1 53.9 42.5 47.4 59.3 50.2 46.9 52.2 56.1 54.2 57.9 58.7 58.6 60.5 62.3 64.1 54.6 02/12/17 57.5 51.7 54.5 61.1 63.0 64.4 61.7 58.8 44.3 44.6 52.3 49.5 50.5 50.6 57.6 58.9 53.9 58.5 59.9 67.0 02/13/17 61.6 58.4 58.9 58.0 59.0 58.7 59.2 59.7 54.9 51.7 53.4 57.8 55.8 59.4 60.2 59.3 62.0 63.8 65.6 64.1 02/14/17 61.5 59.1 59.6 55.9 56.7 53.0 53.4 61.2 53.5 52.6 55.9 57.8 56.7 59.5 61.6 60.8 61.8 64.5 65.9 63.4 02/15/17 60.9 59.4 60.3 57.5 59.2 56.6 62.6 59.9 53.7 55.1 54.3 56.5 57.3 58.4 62.3 59.7 61.5 65.1 66.2 67.7 02/16/17 62.4 60.0 60.9 57.9 56.2 53.1 59.0 62.1 52.5 51.4 55.4 58.8 57.4 60.7 62.5 61.8 63.7 65.8 67.5 63.0 02/17/17 58.6 57.7 57.6 60.0 57.7 53.4 53.4 62.2 53.9 53.9 54.7 57.6 54.3 59.3 59.0 62.2 60.4 62.3 63.8 53.1 02/18/17 60.1 58.0 58.8 52.0 56.6 52.8 54.2 59.4 51.1 52.1 51.9 55.9 55.3 57.9 60.3 59.1 61.5 64.0 65.9 58.3 02/19/17 61.0 58.0 58.6 56.0 55.8 52.8 50.3 61.6 51.5 51.4 52.5 58.2 56.0 58.9 60.3 60.7 61.5 63.5 65.2 56.1 02/20/17 63.9 60.9 61.8 58.8 58.9 48.8 49.3 62.8 49.6 48.5 55.2 59.9 58.1 61.8 62.7 62.3 64.7 66.6 68.4 55.5 02/21/17 62.8 60.6 61.6 54.3 59.3 52.2 51.7 63.0 54.0 53.5 55.3 59.3 58.1 61.2 62.4 63.2 64.3 66.3 68.2 56.4 02/22/17 61.5 59.3 60.6 57.4 57.6 59.2 57.3 61.6 55.3 54.5 54.4 57.4 57.1 58.6 62.4 61.1 62.0 64.9 66.3 62.4 02/23/17 59.3 54.6 56.8 61.2 62.7 63.6 60.2 52.0 47.5 50.2 44.1 59.9 55.9 46.5 64.6 55.6 52.4 62.0 62.8 66.2 02/24/17 62.0 58.6 60.6 54.7 55.3 53.1 55.5 60.7 52.0 51.5 52.7 57.8 57.7 59.8 62.6 62.0 62.6 65.2 66.8 60.8 02/25/17 60.8 54.3 58.9 58.2 58.4 52.6 55.7 58.5 46.5 48.0 51.3 56.5 55.8 58.8 60.5 57.6 60.8 63.8 65.4 60.6 02/26/17 61.9 58.2 58.4 55.1 55.7 50.4 51.9 62.0 49.0 49.8 53.4 58.5 55.5 59.2 60.0 61.3 61.8 63.6 65.6 58.3 02/27/17 62.0 60.9 62.0 50.7 53.7 51.3 52.6 61.3 55.1 53.4 54.2 58.3 57.8 60.7 63.0 61.1 63.9 66.5 67.9 59.7 02/28/17 63.1 59.9 61.2 58.6 59.6 60.1 58.7 60.3 52.7 55.2 55.3 58.2 57.9 59.5 63.5 59.6 62.3 65.9 67.0 65.3

AVERAGE	62.0	59.1	60.2	57.6	57.9	56.0	56.3	61.5	53.1	52.6	54.4	58.2	56.8	59.8	61.9	61.2	62.5	64.9	66.6	61.6
NO. DAYS	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28

### TABLE 3. CNEL VALUES FOR MARCH 2017

#### RMS NUMBER

Date	1	2	3	4	5	6	7	9	10	11	12	13	14	15	16	18	19	20	21	22
03/01/17	60.9	58.0	59.2	56.7	57.5	58.9	59.4	59.3	51.5	52.2	56.1	57.4	55.8	58.4	60.3	59.2	61.7	63.9	65.5	65.2
03/02/17	61.8	59.7	60.6	59.8	61.5	56.8	58.1	59.8	52.5	53.8	53.8	57.6	57.3	59.1	62.5	59.0	62.8	65.5	67.0	63.2
03/03/17	60.5	57.7	59.5	56.2	57.8	56.7	59.5	59.7	53.9	56.2	52.9	56.3	56.2	58.7	61.7	59.2	61.8	64.1	66.1	62.9
03/04/17	60.3	54.6	56.4	54.3	54.3	42.8	48.8	58.7	43.0	46.0	52.0	56.7	53.9	57.8	58.8	59.5	57.4	62.3	64.0	54.1
03/05/17	62.8	60.1	60.6	57.0	56.8	52.2	52.5	61.1	52.3	50.7	54.2	57.7	58.7	59.6	62.5	61.7	62.8	65.7	67.4	57.4
03/06/17	60.9	58.5	59.7	58.7	59.3	60.2	57.7	59.1	52.6	52.0	52.7	55.6	56.5	57.0	61.8	59.3	60.1	64.2	65.1	63.6
03/07/17	61.6	59.5	60.0	54.2	53.5	52.4	52.3	61.6	54.7	53.1	55.4	57.8	56.3	58.7	60.9	61.8	61.6	64.6	65.7	58.7
03/08/17	62.0	60.0	61.0	58.0	58.3	51.4	53.7	61.3	53.4	53.4	54.1	57.4	57.8	59.1	62.0	60.8	62.7	65.4	66.8	57.4
03/09/17	62.3	60.2	61.5	53.5	58.1	50.0	49.9	62.6	52.4	51.1	54.9	57.4	58.0	59.9	62.7	61.9	63.3	66.0	67.5	56.4
03/10/17	61.9	58.3	59.5	54.7	55.1	50.2	54.0	62.3	51.9	52.6	53.5	58.1	56.4	59.6	61.0	62.0	62.6	64.7	66.3	58.1
03/11/17	59.9	54.8	57.3	54.0	56.7	49.0	55.4	59.7	52.1	48.5	50.9	55.7	55.0	58.1	59.8	59.0	58.8	62.1	64.5	60.2
03/12/17	61.0	59.1	60.5	54.5	55.5	49.7	55.1	60.7	56.1	51.9	53.8	56.9	56.3	59.2	61.6	60.2	62.3	65.1	66.8	59.5
03/13/17	61.8	58.9	59.2	55.7	53.6	53.4	52.2	61.4	51.9	50.8	53.4	57.8	55.7	58.6	60.1	61.2	61.9	64.1	65.8	62.1
03/14/17	62.2	60.0	60.5	52.9	56.1	55.5	53.9	61.8	51.3	53.9	55.3	58.2	57.2	59.1	61.6	60.9	62.7	65.6	66.9	62.9
03/15/17	61.4	59.7	60.9	52.8	55.3	54.9	55.8	62.1	56.2	55.1	53.8	56.9	57.3	61.2	61.8	61.9	62.2	65.4	66.7	61.9
03/16/17	63.3	60.1	61.2	57.4	56.8	50.1	54.0	62.6	50.7	51.1	54.1	59.5	57.6	60.7	62.2	62.0	63.9	65.9	67.8	56.8
03/17/17	61.9	57.6	59.7	57.0	57.2	53.9	57.6	62.6	52.6	55.9	53.0	58.4	57.5	59.3	61.9	62.3	62.4	65.2	67.0	64.2
03/18/17	60.2	51.2	56.7	53.8	54.1	51.4	51.2	58.9	50.3	49.5	48.5	56.1	54.2	58.1	59.5	59.2	59.1	62.1	64.3	59.4
03/19/17	61.9	58.4	59.0	55.4	55.2	46.5	51.9	61.9	50.2	48.8	53.3	58.0	55.4	59.1	60.3	61.1	62.4	64.2	66.1	57.2
03/20/17	62.5	59.5	59.5	53.3	56.9	54.0	52.2	61.4	49.7	50.6	53.2	59.4	56.2	60.0	60.5	60.7	62.9	64.4	66.2	60.7
03/21/17	64.8	60.0	61.2	59.7	58.1	53.9	52.0	63.5	51.8	50.5	55.8	61.2	57.6	61.0	62.5	62.8	64.0	66.2	67.9	61.7
03/22/17	61.7	60.5	61.8	57.5	59.0	59.9	58.1	61.5	52.8	55.1	54.1	56.6	58.5	59.2	64.1	61.4	62.5	66.1	67.4	63.2
03/23/17	62.3	58.3	58.9	60.2	61.9	62.8	60.2	61.9	52.8	52.5	53.4	58.1	56.3	58.6	62.7	61.5	61.6	64.2	65.7	66.4
03/24/17	62.8	61.1	62.2	55.6	57.9	52.9	57.4	63.3	53.4	51.4	55.1	59.3	58.7	61.3	63.3	62.5	63.6	66.6	67.7	62.1
03/25/17	61.8	58.2	59.4	51.5	55.6	43.9	55.0	60.1	51.2	51.8	54.3	58.7	55.2	59.1	59.9	60.4	61.8	63.5	65.2	54.3
03/26/17	61.6	59.5	60.7	51.8	55.6	45.0	47.4	61.5	51.8	49.3	53.2	58.5	56.8	60.5	61.4	60.6	63.5	65.1	66.9	53.2
03/27/17	62.3	58.6	58.8	57.2	59.4	58.4	56.7	54.7	53.8	56.4	51.5	54.0	57.0	54.8	62.6	55.3	59.2	63.1	63.9	61.5
03/28/17	55.1	49.6	47.4	54.8	51.9	53.2	50.2	53.4	49.3	49.9	53.4	52.2	48.2	50.5	54.1	53.1	51.6	57.3	57.8	51.1
03/29/17	58.2	52.6	50.9	52.8	55.5	51.1	51.6	52.0	52.6	52.1	51.1	54.1	50.4	52.4	56.1	52.6	54.2	59.0	61.7	56.1
03/30/17	59.4	52.2	50.2	52.2	52.0	49.9	48.2	49.1	57.4	57.1	45.9	52.5	50.7	49.7	57.9	47.7	52.1	59.0	59.1	45.9
03/31/17	58.1	52.8	51.7	52.0	54.5	55.5	55.3	52.1	50.8	53.8	46.5	53.6	50.4	50.9	56.7	53.0	55.1	59.5	60.4	55.4

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Site	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	4 Quarter
No.	2016	2016	2016	2017	Average
					0
1	60.8	61.7	61.6	63.3	61.9
2	57.9	59.3	58.9	59.0	58.8
3	59.3	60.2	60.0	60.0	59.9
4	56.9	56.2	57.3	57.4	57.0
5	57.4	56.2	57.9	57.8	57.3
6	55.6	52.1	55.5	55.1	54.8
7	55.1	53.7	56.4	55.4	55.3
9	60.9	62.2	61.1	61.4	61.4
10	53.8	55.0	54.2	53.2	54.1
11	53.3	52.6	53.6	52.8	53.1
12	53.6	53.6	54.2	54.4	54.0
13	56.5	57.8	57.5	58.2	57.5
14	55.5	56.6	56.7	56.7	56.4
15	58.1	59.4	59.2	59.4	59.1
16	60.7	61.5	61.8	61.6	61.4
18	60.5	61.7	60.7	61.1	61.0
19	61.2	62.6	62.2	62.3	62.1
20	63.9	64.9	64.9	64.7	64.7
21	65.5	66.6	66.3	66.4	66.2
22	60.7	59.2	61.4	60.9	60.6

# TABLE 4. AVERAGE CNEL VALUES

Table 5.	WEEKLY SCHEDULED AIR CARRIER AND AIR TAXI
	FLIGHTS FOR THE FIRST QUARTER 2017

AIRCRAFT DAY EVENING NIGHT TOTAL	AS EM DEP 14 6 0 20	SCHEI 1B175 ARR 14 6 0 20	DULE IN AS B7 DEP 2 0 0 2	EFFECT 377 ARR 1 1 0 2	FROM AS CF DEP 0 0 0 0	1/1/17 RJ7 ARR 0 0 0 0	to AS CF DEP 0 0 0 0	1/5/17 RJ ARR 0 0 0 0 0	5 DAY AS B7 DEP 19 0 0 19	S 378 ARR 13 6 0 19
DAY EVENING NIGHT TOTAL	US A3 DEP 0 0 0 0	SCHEI 19 ARR 0 0 0 0	DULE IN US A3 DEP 0 0 0 0	EFFECT 20 ARR 0 0 0 0 0	FROM US B7 DEP 0 0 0 0 0	1/1/17 7372 ARR 0 0 0 0	to US B7 DEP 0 0 0 0	1/5/17 373 ARR 0 0 0 0	US CR DEP 0 0 0 0	RJ ARR 0 0 0 0 0
DAY EVENING NIGHT TOTAL	US CF DEP 0 0 0 0	SCHEI RJ7 ARR 0 0 0 0 0	DULE IN US CF DEP 21 0 7 28	EFFECT RJ9 ARR 21 7 0 28	FROM AA MI DEP 0 0 0 0 0	1/1/17 280 ARR 0 0 0 0	to WN B <sup>-</sup> DEP 0 0 0 0	1/5/17 7373 ARR 0 0 0 0 0	WN 87 DEP 13 0 0 13	7375 ARR 7 6 0 13
DAY EVENING NIGHT TOTAL	WN B DEP 249 56 0 305	SCHEI 7377 ARR 221 84 0 305	DULE IN WN B DEP 0 0 0 0 0	EFFECT 7378 ARR 0 0 0 0 0	FROM UA A3 DEP 0 0 0 0 0	1/1/17 320 ARR 0 0 0 0 0	to UA A3 DEP 0 0 0 0	1/5/17 19 ARR 0 0 0 0	UA B7 DEP 0 0 0 0	375 ARR 0 0 0 0
DAY EVENING NIGHT TOTAL	UA B7 DEP 0 0 0 0	SCHEI 57 ARR 0 0 0 0	DULE IN UA RJ DEP 32 6 0 38	EFFECT ARR 25 13 0 38	FROM UA CF DEP 2 0 0 2	1/1/17 RJ7 ARR 2 0 0 2	to FE A3 DEP 0 0 0 0	1/5/17 00 ARR 0 0 0 0	FE A3 DEP 2 9 0 11	10 ARR 7 0 4 11
DAY EVENING NIGHT TOTAL	UPS A DEP 3 5 0 8	SCHEI 300 ARR 4 0 4 8	DULE IN UPS E DEP 0 0 0 0	EFFECT 3757 ARR 0 0 0 0	FROM DL B7 DEP 0 0 0 0	1/1/17 52 ARR 0 0 0 0	to DL CR DEP 13 0 0 13	1/5/17 J ARR 13 0 0 13	DL CR DEP 7 0 0 7	2J7 ARR 0 7 0 7
DAY EVENING NIGHT TOTAL	DL CR DEP 0 0 0 0	SCHEI 2J9 ARR 0 0 0 0	DULE IN B6 A3 DEP 0 7 0 7	EFFECT 20 ARR 0 7 0 7	FROM FW2 / DEP 0 0 0 0	1/1/17 A319 ARR 0 0 0 0 0	to	1/5/17	TOTAI DEP 377 89 7 473	LS ARR 328 137 8 473

# Table 5.WEEKLY SCHEDULED AIR CARRIER AND AIR TAXI<br/>FLIGHTS FOR THE FIRST QUARTER 2017

	DAY EVENING NIGHT TOTAL	DEP 0 0 0 0	ARR 0 0 0 0	DEP 0 7 0 7	ARR 0 7 0 7	DEP 0 0 0 0	ARR 0 0 0 0			DEP 377 89 7 473	ARR 328 137 8 473
			SCHED	ULE IN E		ROM	1/6/17	to	2/15/17	τοται «	3
	TOTAL	8	8	0	0	0	0	13	13	7	7
	NIGHT	0	4	0	0	0	0	0	0	0	0
		ა 5	4 0	0	0	0	0	13	13 0	0	7
		DEP 3	ARR	DEP	ARR 0	DEP	ARR 0	DEP	ARR	DEP 7	ARR
		UPS A3	00	UPS B7	57	DL B752	2	DL CRJ		DL CRJ	7
			SCHED		FFFCTF	ROM	1/6/17	to	2/15/17		
	TOTAL	0	õ	38	38	2	2	õ	õ	11	11
		0	0	0	13 0	0	0	0	0	9	4
		0	0	32	25 12	2	2	0	0	2	7
	DAY	DEP	ARR	DEP	ARR	DEP	ARR	DEP	ARR	DEP	ARR
		UA B75	7 7	UA RJ		UA CRJ	7	FE A300	2/13/17 )	FE A310	)
			SCHED		FFECT	ROM	1/6/17	to	2/15/17		
	TOTAL	305	305	0	0	0	0	0	0	0	0
	NIGHT	0	0	0	0	0	0	0	0	0	0
		249 56	221 84	0	0	0	0	0	0	0	0
		DEP	ARR	DEP	ARR	DEP	ARR	DEP	ARR	DEP	ARR
		WN B73	577	WN B73	378	UA A320	0	UA A319	9	UA B73	75
			SCHED	ULE IN E	FFECT F	ROM	1/6/17	to	2/15/17		
	IUIAL	U	U	28	28	U	U	U	U	13	13
	NIGHT	0	0	7	0	0	0	0	0	0	0
	EVENING	0	0	0	7	0	0	0	0	0	6
	DAY	0	0	21	21	0	0	0	0	13	7
		US CRJ DEP	7 ARR	US CRJ DEP	9 ARR	AA MD8 DEP	0 ARR	WN B73 DEP	73 ARR	WN B73 DEP	875 ARR
			SCHED	ULE IN E	FFECT F	ROM	1/6/17	to	2/15/17		
	IOTAL	U	U	U	U	U	U	U	U	U	0
	NIGHT	0	0	0	0	0	0	0	0	0	0
	EVENING	0	0	0	0	0	0	0	0	0	0
	DAY	0	0	0	0	0	0	0	0	0	0
		DEP	ARR	DEP	ARR	DEP	ARR	DEP	ARR	DEP	ARR
		US 4310	SCHED	ULE IN E	:FFECT F 0	KOM	1/6/17 72	to US B737	2/15/17 73	US CR I	
						-	-		-		
	TOTAL	0 20	U 20	0 2	0 2	0	0	0	U 0	υ 19	υ 19
	EVENING	6	6	0	1	0	0	0	0	0	6
	DAY	14	14	2	1	0	0	0	0	19	13
		DEP	ARR	DEP	ARR	DEP	ARR	DEP	ARR	DEP	ARR
A	IRCRAFT	AS EMB	30neb	AS B737	77	AS CRJ	7	AS CRJ	2/13/17	AS B737	3 78
			SCHED	ULE IN E	FFECT F	ROM	1/6/17	to	2/15/17	41 DAY	'S

Table 5.	WEEKLY SCHEDULED AIR CARRIER AND AIR TAXI
	FLIGHTS FOR THE FIRST QUARTER 2017

AIRCRAFT DAY EVENING NIGHT TOTAL	AS EME DEP 14 6 0 20	SCHED 3175 ARR 14 6 0 20	DULE IN 8 AS B73 DEP 2 0 0 2	EFFECT 877 ARR 1 1 0 2	FROM AS CRJ DEP 0 0 0 0	2/16/17 17 ARR 0 0 0 0	to AS CRJ DEP 0 0 0 0	2/17/17 ARR 0 0 0 0	2 DAYS AS B73 DEP 19 0 0 19	5 78 ARR 13 6 0 19
DAY EVENING NIGHT TOTAL	US A31 DEP 0 0 0 0	SCHED 9 ARR 0 0 0 0	DULE IN I US A32 DEP 0 0 0 0	EFFECT 20 ARR 0 0 0 0 0	FROM US B73 DEP 0 0 0 0	2/16/17 72 ARR 0 0 0 0	to US B73 DEP 0 0 0 0	2/17/17 73 ARR 0 0 0 0	US CRJ DEP 0 0 0 0	ARR 0 0 0 0
DAY EVENING NIGHT TOTAL	US CRJ DEP 0 0 0 0	SCHED I7 ARR 0 0 0 0	DULE IN I US CR DEP 21 0 7 28	EFFECT J9 ARR 21 7 0 28	FROM AA MD8 DEP 0 0 0 0	2/16/17 30 ARR 0 0 0 0	to WN B73 DEP 0 0 0 0	2/17/17 373 ARR 0 0 0 0 0	WN B73 DEP 13 0 0 13	375 ARR 12 1 0 13
DAY EVENING NIGHT TOTAL	WN B73 DEP 249 56 0 305	SCHED 377 ARR 221 84 0 305	OULE IN I WN B7 DEP 0 0 0 0	EFFECT 378 ARR 0 0 0 0 0	FROM UA A32 DEP 6 0 0 6	2/16/17 0 ARR 0 6 0 6	to UA A319 DEP 6 0 0 6	2/17/17 9 ARR 6 0 0 6	UA B73 DEP 0 0 0 0	75 ARR 0 0 0 0
DAY EVENING NIGHT TOTAL	UA B75 DEP 0 0 0 0	SCHED 7 ARR 0 0 0 0	DULE IN I UA RJ DEP 18 6 0 24	ARR 18 6 0 24	FROM UA CR DEP 2 0 0 2	2/16/17 J7 ARR 2 0 0 2	to FE A300 DEP 0 0 0 0	2/17/17 ) ARR 0 0 0 0 0	FE A310 DEP 2 9 0 11	0 ARR 7 0 4 11
DAY EVENING NIGHT TOTAL	UPS A3 DEP 3 5 0 8	SCHED 600 ARR 4 0 4 8	DULE IN I UPS B DEP 0 0 0 0 0	EFFECT 757 ARR 0 0 0 0 0	FROM DL B75 DEP 0 0 0 0 0	2/16/17 2 ARR 0 0 0 0	to DL CRJ DEP 13 0 0 13	2/17/17 ARR 13 0 0 13	DL CRJ DEP 7 0 0 7	7 ARR 0 7 0 7
DAY EVENING NIGHT TOTAL	DL CRJ DEP 0 0 0 0	SCHED 9 ARR 0 0 0 0 0	DULE IN I B6 A32 DEP 0 7 0 7	EFFECT 0 ARR 0 7 0 7 0 7	FROM FW2 A3 DEP 0 0 0 0 0	2/16/17 319 ARR 0 0 0 0	to	2/17/17	TOTALS DEP 375 89 7 471	S ARR 332 131 8 471

Table 5.	WEEKLY SCHEDULED AIR CARRIER AND AIR TAXI
	FLIGHTS FOR THE FIRST QUARTER 2017

AIRCRAFT DAY EVENING NIGHT TOTAL	AS EME DEP 14 6 0 20	SCHED 3175 ARR 14 6 0 20	OULE IN 8 AS 873 DEP 2 0 0 2	EFFECT 377 ARR 1 1 0 2	FROM AS CR. DEP 0 0 0 0	2/18/17 J7 ARR 0 0 0 0	to AS CRJ DEP 0 0 0 0	3/9/17 ARR 0 0 0 0	2 DAYS AS B73 DEP 19 0 0 19	3 78 ARR 13 6 0 19
DAY EVENING NIGHT TOTAL	US A31 DEP 0 0 0 0	SCHED 9 ARR 0 0 0 0	DULE IN I US A32 DEP 0 0 0 0	EFFECT 20 ARR 0 0 0 0	FROM US B73 DEP 0 0 0 0	2/18/17 372 ARR 0 0 0 0	to US B73 DEP 0 0 0 0	3/9/17 73 ARR 0 0 0 0	US CR. DEP 0 0 0 0	J ARR 0 0 0 0
DAY EVENING NIGHT TOTAL	US CRJ DEP 0 0 0 0	SCHED 7 ARR 0 0 0 0 0	DULE IN I US CR DEP 20 0 7 27	EFFECT J9 ARR 21 6 0 27	FROM AA MD DEP 0 0 0 0 0	2/18/17 80 ARR 0 0 0 0	to WN B73 DEP 0 0 0 0	3/9/17 373 ARR 0 0 0 0 0	WN B7 DEP 13 0 0 13	375 ARR 12 1 0 13
DAY EVENING NIGHT TOTAL	WN B73 DEP 249 56 0 305	SCHED 377 ARR 221 84 0 305	OULE IN I WN B7 DEP 0 0 0 0	EFFECT 378 ARR 0 0 0 0 0	FROM UA A32 DEP 6 0 0 6	2/18/17 20 ARR 0 6 0 6	to UA A319 DEP 6 0 0 6	3/9/17 9 ARR 6 0 0 6	UA B73 DEP 0 0 0 0	375 ARR 0 0 0 0 0
DAY EVENING NIGHT TOTAL	UA B75 DEP 0 0 0 0	SCHED 7 ARR 0 0 0 0	DULE IN I UA RJ DEP 18 6 0 24	ARR 18 6 0 24	FROM UA CR DEP 2 0 0 2	2/18/17 J7 ARR 2 0 0 2	to FE A300 DEP 0 0 0 0	3/9/17 ) ARR 0 0 0 0	FE A31 DEP 2 9 0 11	0 ARR 7 0 4 11
DAY EVENING NIGHT TOTAL	UPS A3 DEP 3 5 0 8	SCHED 00 ARR 4 0 4 8	DULE IN I UPS B DEP 0 0 0 0	EFFECT 757 ARR 0 0 0 0 0	FROM DL B75 DEP 0 0 0 0	2/18/17 52 ARR 0 0 0 0	to DL CRJ DEP 13 0 0 13	3/9/17 ARR 13 0 0 13	DL CR. DEP 7 0 0 7	J7 ARR 0 7 0 7
DAY EVENING NIGHT TOTAL	DL CRJ DEP 0 0 0 0	SCHED 9 ARR 0 0 0 0	DULE IN 8 B6 A32 DEP 0 7 0 7	EFFECT 0 ARR 0 7 0 7 0 7	FROM FW2 A DEP 0 0 0 0 0	2/18/17 319 ARR 0 0 0 0 0	to	3/9/17	TOTAL DEP 374 89 7 470	S ARR 332 130 8 470

# Table 5.WEEKLY SCHEDULED AIR CARRIER AND AIR TAXI<br/>FLIGHTS FOR THE FIRST QUARTER 2017

AIRCRAFT DAY EVENING NIGHT TOTAL	AS EM DEP 14 6 0 20	SCHEI IB175 ARR 14 6 0 20	DULE IN AS B7 DEP 2 0 0 2	EFFECT 377 ARR 1 1 0 2	FROM AS CF DEP 0 0 0 0	3/10/17 RJ7 ARR 0 0 0 0	to AS CRJ DEP 0 0 0 0	3/11/17 ARR 0 0 0 0	2 DAYS AS B73 DEP 19 0 0 19	3 78 ARR 13 6 0 19
DAY EVENING NIGHT TOTAL	US A3 DEP 0 0 0 0	SCHEI 19 ARR 0 0 0 0 0	DULE IN US A3 DEP 0 0 0 0	EFFECT 20 ARR 0 0 0 0 0	FROM US B7 DEP 0 0 0 0	3/10/17 372 ARR 0 0 0 0 0	to US B73 DEP 0 0 0 0	3/11/17 73 ARR 0 0 0 0 0	US CR. DEP 0 0 0 0	J ARR 0 0 0 0
DAY EVENING NIGHT TOTAL	US CR DEP 0 0 0 0	SCHEI SJ7 ARR 0 0 0 0 0	DULE IN US CF DEP 20 0 7 27	EFFECT J9 ARR 21 6 0 27	FROM AA ME DEP 0 0 0 0	3/10/17 080 ARR 0 0 0 0 0	to WN B73 DEP 0 0 0 0	3/11/17 373 ARR 0 0 0 0	WN B7 DEP 13 0 0 13	375 ARR 12 1 0 13
DAY EVENING NIGHT TOTAL	WN B7 DEP 276 67 0 343	SCHEI 7377 ARR 258 85 0 343	DULE IN WN B DEP 0 0 0 0 0	EFFECT 7378 ARR 0 0 0 0 0	FROM UA A3 DEP 6 0 0 6	3/10/17 20 ARR 0 6 0 6	to UA A31 DEP 6 0 0 6	3/11/17 9 ARR 6 0 0 6	UA B73 DEP 0 0 0 0	675 ARR 0 0 0 0 0
DAY EVENING NIGHT TOTAL	UA B7 DEP 0 0 0 0	SCHEI 57 ARR 0 0 0 0 0	DULE IN UA RJ DEP 18 6 0 24	EFFECT ARR 18 6 0 24	FROM UA CF DEP 2 0 0 2	3/10/17 RJ7 ARR 2 0 0 2	to FE A300 DEP 0 0 0 0	3/11/17 0 ARR 0 0 0 0	FE A31 DEP 2 9 0 11	0 ARR 7 0 4 11
DAY EVENING NIGHT TOTAL	UPS A DEP 3 5 0 8	SCHEI 300 ARR 4 0 4 8	DULE IN UPS E DEP 0 0 0 0	EFFECT 3757 ARR 0 0 0 0 0	FROM DL B7 DEP 0 0 0 0	3/10/17 52 ARR 0 0 0 0 0	to DL CRJ DEP 13 0 0 13	3/11/17 ARR 13 0 0 13	DL CR. DEP 7 0 0 7	J7 ARR 0 7 0 7
DAY EVENING NIGHT TOTAL	DL CR DEP 0 0 0 0	SCHEI J9 ARR 0 0 0 0	DULE IN B6 A3 DEP 0 7 0 7	EFFECT 20 ARR 0 7 0 7	FROM FW2 A DEP 0 0 0 0	3/10/17 A319 ARR 0 0 0 0 0	to	3/11/17	TOTAL DEP 401 100 7 508	S ARR 369 131 8 508

# Table 5.WEEKLY SCHEDULED AIR CARRIER AND AIR TAXI<br/>FLIGHTS FOR THE FIRST QUARTER 2017

AIRCRAFT DAY EVENING NIGHT	AS EM DEP 28 14 0	SCHEI B175 ARR 35 7 0	DULE IN AS B7 DEP 0 0 0	EFFECT 377 ARR 0 0 0	FROM AS CR DEP 0 0 0	3/12/17 SJ7 ARR 0 0 0	to AS CRJ DEP 0 0 0	3/31/17 ARR 0 0 0	20.00 AS B73 DEP 21 0 0	DAYS 78 ARR 21 0 0
DAY EVENING NIGHT TOTAL	42 US A3 <sup>7</sup> DEP 0 0 0 0	42 SCHEI 19 ARR 0 0 0 0	ULE IN US A3 DEP 0 0 0	0 EFFECT 20 ARR 0 0 0 0	0 FROM US B7 DEP 0 0 0 0	0 3/12/17 372 ARR 0 0 0 0	to US B73 DEP 0 0 0 0	0 3/31/17 73 ARR 0 0 0 0	US CRJ DEP 0 0 0 0	21 ARR 0 0 0 0
DAY EVENING NIGHT TOTAL	US CR DEP 0 0 0 0	SCHEI J7 ARR 0 0 0 0 0	DULE IN US CR DEP 20 0 7 27	EFFECT 2J9 ARR 21 6 0 27	FROM AA ME DEP 0 0 0 0	3/12/17 280 ARR 0 0 0 0	to WN B73 DEP 0 0 0 0	3/31/17 373 ARR 0 0 0 0 0	WN B73 DEP 13 0 0 13	375 ARR 12 1 0 13
DAY EVENING NIGHT TOTAL	WN B7 DEP 276 67 0 343	SCHEI 377 ARR 258 85 0 343	DULE IN WN B7 DEP 0 0 0 0 0	EFFECT 7378 ARR 0 0 0 0 0	FROM UA A3 DEP 6 0 0 6	3/12/17 20 ARR 0 6 0 6	to UA A31 DEP 6 0 0 6	3/31/17 9 ARR 6 0 0 6	UA B73 DEP 0 0 0 0	75 ARR 0 0 0 0
DAY EVENING NIGHT TOTAL	UA B75 DEP 0 0 0 0	SCHEI 57 ARR 0 0 0 0 0	DULE IN UA RJ DEP 18 6 0 24	EFFECT ARR 18 6 0 24	FROM UA CR DEP 2 0 0 2	3/12/17 SJ7 ARR 2 0 0 2	to FE A300 DEP 0 0 0 0	3/31/17 ARR 0 0 0 0	FE A310 DEP 2 9 0 11	) ARR 7 0 4 11
DAY EVENING NIGHT TOTAL	UPS A3 DEP 3 5 0 8	SCHEI 300 ARR 4 0 4 8	DULE IN UPS B DEP 0 0 0 0	EFFECT 757 ARR 0 0 0 0	FROM DL B75 DEP 0 0 0 0	3/12/17 52 ARR 0 0 0 0	to DL CRJ DEP 13 0 0 13	3/31/17 ARR 13 0 0 13	DL CRJ DEP 7 0 0 7	7 ARR 0 7 0 7
DAY EVENING NIGHT TOTAL	DL CR DEP 0 0 0 0	SCHEI J9 ARR 0 0 0 0	DULE IN B6 A32 DEP 0 7 0 7	EFFECT 20 ARR 0 7 0 7 0 7	FROM FW2 A DEP 0 0 0 0	3/12/17 319 ARR 0 0 0 0 0	to	3/31/17	TOTALS DEP 415 108 7 530	S ARR 397 125 8 530

# TABLE 5. (CONTINUED)

#### FIRST QUARTER 2017

#### PERIOD TOTALS FOR AIR CARRIERS AND AIR TAXIS

#### **AIR CARRIERS**

	DEP 1715 452	<u>ARR</u> 1623 509
NIGHT	0	30
TOTAL	2167	2167
AIR TAXIS		
	DFP	ARR
DAY	234	239
EVE	27	53
	21	0
NIGHT	51	0
TOTAL	292	292

#### AIR CARRIERS AND AIR TAXIS

	DEP	ARR
DAY	1949	1862
EVE	479	562
NIGHT	31	35
TOTAL	2459	2459

## VI. INCOMPATIBLE LAND USE

The contours shown in Figures 1 and 2 were digitized and overlaid on a digital land use map of the area around the Airport. The total areas enclosed by the 65 and 70 dB CNEL contours were 560.7 and 235.6 acres, respectively. The areas of incompatible land uses enclosed by the contours were then computed. The incompatible land use areas were 7.41 acres within the 65 dB contour of which 0.37 acres were also within the 70 dB contour.

It should be noted that the above incompatible land areas do not include the soundproofed schools in the vicinity of the Airport (the Luther Burbank Middle School, St. Patrick and Glenwood Schools). The above incompatible land use areas also do not include those residences to which the Airport has acquired avigation easements. Within the 65 dB contour, the Airport has acquired avigation easements, through its ongoing residential sound insulation program, to 167 parcels of land. Those 167 parcels total 23.89 acres. One of the 167 parcels is also located within the 70 dB contour. Within the 65 dB contour, the Airport has also acquired avigation easements, under the Court of Appeal decision in <u>Baker v. Burbank-Glendale-Pasadena Airport Authority</u>, 220 Cal. App. 3d 1602 (1990), to 56 parcels of land. For 48 of the 56 parcels, the Authority has acquired avigation easements both through <u>Baker</u> and through its ongoing sound insulation program. Those 48 parcels are included in the total number of sound insulation program avigation easements set forth above. The 7 remaining <u>Baker</u> easement parcels total 0.89 acres.

It should be noted that the Airport Authority has made repeated attempts over the past several years to acoustically treat and obtain avigation easements at 52 single family residential parcels, totaling approximately 7.41 acres of the incompatible land use area within the 65 dB contour. Owners of these parcels have either refused to respond to notices regarding the sound insulation program, have withdrawn from the program, or own properties with major building code deficiencies that prevent them from participating.

The estimated numbers of incompatible residences are 55 within the 65 dB contour, of which 2 are also within the 70 dB contour. The estimated numbers of people residing within the 65 and 70 dB CNEL contours are 149 and 5, respectively.

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# REFERENCES

- California Department of Transportation, Division of Aeronautics, "Noise Standards", California Code of Regulations, Title 21, Chapter 2.5, Subchapter 6.
- 2. L-30488, Department of Transportation, State of California, 27 June 1984.
- "Quarterly Noise Monitoring at Burbank Airport, Second Quarter 2016", AAAI Report 1491.
- "Quarterly Noise Monitoring at Bob Hope Airport, Third Quarter 2016", AAAI Report 1492.
- "Quarterly Noise Monitoring at Burbank Airport, Fourth Quarter 2016", AAAI Report 1493.

APPENDIX A NOISE MONITOR INSTRUMENTATION

# APPENDIX A NOISE MONITOR INSTRUMENTATION

The permanent noise monitor system, manufactured by Bruel & Kjaer, consists of 20 noise monitoring terminals (NMT) connected to a central site by DSL or wireless connections. The system block diagram showing the major elements is shown in Figure A-1. The electrical signal generated by the microphone/preamplifier assembly at each site is processed and saved locally in the B & K sound level meter. The signal is passed through an A-weighting filter and is then detected and converted to a digital level signal in decibels with a resolution of 0.1 dB.

The stored sound level data at each site is dumped once every 24-hour period via wireless or DSL connection to the central site. The data received by the central site are processed by the ANOMS computer software. According to preset parameters, the noise is separated into two categories--aircraft noise and community noise. Each event attributed to an aircraft is saved in a noise event file. Computations are made of hourly noise level, community noise equivalent level, runway use, and other parameters. A wide variety of data presentations is available by exercising a number of routines provided by B & K, as well as special-purpose routines that can be generated by the user.

The locations of the remote sites (shown in Figure 3) are listed by latitude and longitude in Table A-1.



Figure A-1. Permanent Noise Monitor System Schematic

# TABLE A-1 NOISE MONITOR SITE LOCATIONS

NMT	Latitude	Longitude
1	34.188424	-118.358983
2	34.184296	-118.347330
3	34.175731	-118.354197
4	34.212022	-118.364391
5	34.215261	-118.357381
6	34.220705	-118.365214
7	34.224979	-118.363989
9	34.198871	-118.398889
10	34.195336	-118.342392
11	34.197321	-118.340376
12	34.190175	-118.365404
13	34.181303	-118.345270
14	34.178786	-118.347134
15	34.173922	-118.363157
16	34.181185	-118.350949
18	34.196899	-118.389014
19	34.181277	-118.357866
20	34.188378	-118.351878
21	34.186700	-118.354939
22	34.217035	-118.361725

APPENDIX B CALIBRATION

# APPENDIX B CALIBRATION

The system was calibrated during setup using a Bruel and Kjaer acoustic calibrator. Acoustic calibrations are performed annually. Electrical calibrations are performed automatically four times per 24-hour day. Figure B-1 shows the calibration summary for January 2013 and Figure B-2 shows the detailed electrical calibration report for Noise Monitor Site 1.



# Devices Report

RMT Calibration Results Bob Hope Airport Start Date: 04-Jan-2013 End Date: 31-Jan-2013

Monitor Location: 1 - 1, (Fixed)

Seven Day Period Commencing: Friday January 04, 2013

Calibrated with Sound Calibrator : Never

Number of Calibrations: 27

Average adjustment for this RMT over this period: 0.10 dB

Date Time	Expected Result	Value Measured	Calibration Error
04-Jan-2013 0:00	87.1	87.2	0,0
04-Jan-2013 6:00	87.1	87.2	0,1
04-Jan-2013 12:00	87.1	87.2	0,0
04-Jan-2013 18:00	87.1	87.2	0.1
05-Jan-2013 0:00	87.1	87.2	0.1
05-Jan-2013 6:00	87.1	87.2	0,1
05-Jan-2013 12:00	87.1	87.2	0,1
05-Jan-2013 18:00	87.1	87.2	0.1
06-Jan-2013 0:00	87.1	87.2	0,0
06-Jan-2013 6:00	87,1	87.2	0,1
06-Jan-2013 12:00	87.1	87.2	0,1
06-Jan-2013 18:00	87.1	87.2	0,1
07-Jan-2013 0:00	87,1	87.2	0,0
07-Jan-2013 6:00	87.1	87.2	0.1
07-Jan-2013 12:00	87.1	87.2	0.1
07-Jan-2013 18:00	87,1	87.2	0,1
08-Jan-2013 0:00	87.1	87.2	0.1
08-Jan-2013 6:00	87.1	87.2	0.1
08-Jan-2013 12:00	87,1	87.3	0.2
08-Jan-2013 18:00	87.1	87.2	0.1
09-Jan-2013 0:00	87.1	87.2	0.1
09-Jan-2013 6:00	87,1	87.2	0.1
09-Jan-2013 12:00	87.1	87.2	0.1
09-Jan-2013 18:00	87.1	87.2	0.1
10-Jan-2013 0:00	87.1	87.2	0,1
10-Jan-2013 6:00	87.1	87.2	0.1
10-Jan-2013 12:00	87.1	87.2	0,1

15-May-2013

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# **Devices Report**

RMT Calibration Results Bob Hope Airport Start Date: 04-Jan-2013 End Date: 31-Jan-2013

M	onitor Location	04-Jan-2013	11-Jan-2013	18-Jan-2013	25-Jan-2013
1	1	0.1	0.1	0.1	0,1
2	2	0.4	0.4	0.3	0.3
3	3	0.5	0.0	0.0	0.0
4	4	0.3	0.3	0.3	0.3
5	#5	0.2	0.2	0.2	0.2
6	6	0.0	0.0	0.0	0.0
7	7	0.3	0.3	0.3	0.3
9	9	0.2	0.2	0.2	0.2
10	10	0.2	0.2	0.2	0.2
11	11	0.6	0.0	0.0	0.0
12	12	0.3	0.3	0.3	0.3
13	13	0.0	0.0	0.0	0.0
14	14	0.0	0.0	0.0	0.0
15	15	0.0	0.0	0.0	0.0
16	15	0.4	0.4	0.4	0.4
18	18	0.0	0.0	0.1	0,1
19	19	0.0	0.0	0.0	0.0
20	20	0.1	0.0	0.1	0.1
21	21	0.0	0.0	0.0	0.0
22	22	0.0	0.0	0.0	0.0

15-May-2013

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## THE BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY'S UPDATE REGARDING ITS NOISE IMPACT AREA REDUCTION PLAN AND ITS PART 161 STUDY SECOND QUARTER 2017

Pursuant to the California Department of Transportation's ("Caltrans") February 28, 2008 decision granting the Burbank-Glendale-Pasadena Airport Authority ("Authority") a variance ("Variance") from the requirements of Section 5012 of the California Noise Standards, Title 21 California Code of Regulations, §§ 5000 <u>et seq.</u>, ("Noise Standards"), effective March 29, 2008 (the "Decision"), the Authority provides the following update regarding the Bob Hope Airport's ("Airport") Noise Impact Area Reduction Plan ("Plan") and the Authority's Part 161 Study ("Study"):

## SUMMARY OF MAJOR PLAN ACCOMPLISHMENTS SINCE THE GRANT OF THE CURRENT VARIANCE

• The Airport's Noise Impact Area for the second quarter 2017, as defined by the Noise Standards, was 8.14 acres of incompatible land within the 65 dB contour a 9.8% increase from the previous quarter of 7.41 acres.<sup>1</sup> The Noise Impact Area at the time the Authority's current variance was granted was 60.84 acres.

• As of June 30, 2017, the Authority has completed the acoustical treatment of 2,445 residences as part of its Residential Acoustical Treatment Program ("RATP"), and there are no units under construction, design phase or pending signing of the RATP participation agreement. (For a discussion of approved funding for future acoustical treatment, please see separate section entitled "Report Regarding Approved Funding for Future Acoustical Treatment" below.)

<sup>&</sup>lt;sup>1</sup> The noise impact area has been calculated using updated master contours beginning in the second quarter of 2009.

## SPECIFIC MEASURES TAKEN BY THE AUTHORITY IN THE PAST QUARTER

- During the quarter staff responded to 77 noise complaints from 59 callers, less from the same period in 2016 when 125 noise complaints were filed from 47 callers.
- During the quarter staff investigated 6 general aviation flight operators for suspected noise rule violations, which is a decrease of 1 from last quarter and 5 less from the same period in 2016.

### **REPORT ON THE STATUS OF THE PART 161 STUDY**

The Airport Authority, on February 2, 2009, as required by the Airport Noise and Capacity Act of 1990 ("ANCA"), submitted pursuant to 14 C.F.R. Part 161 its Part 161 Application to the FAA, seeking approval by the FAA of the imposition of a mandatory full nighttime curfew at the Airport between the hours of 10:00 p.m. through 6:59 a.m. Accompanying the Application, the Authority submitted documentation in support of a finding that the proposed full mandatory curfew in the Application qualifies for a "categorical exclusion" under the National Environmental Policy Act.

As noted in the report for the Third Quarter of 2009, by letter dated October 30, 2009, the FAA announced that it had denied the Authority's Part 161 Application seeking FAA approval for the imposition of a full mandatory nighttime curfew at the Airport. The FAA's decision indicated that it did not find that the Application satisfied four of the six statutory conditions required for a restriction to be approved under Part 161, and that it viewed the ongoing acoustical treatment program at the Airport as the viable method for addressing the Airport's noise problems.

## REPORT ON APPROVED FUNDING FOR FUTURE ACOUSTICAL TREATMENT

The RATP program is an approved mitigation measure contained in the Authority's second Part 150 Study completed in 1998 and approved by the FAA in 2000. The Authority has now completed a third Part 150 Study including a Noise Exposure Map (NEM) and a Noise Compatibility Program (NCP) which was approved on November 7, 2016. The Authority has now completed and submitted a pre-application to the FAA for grant funding to continue the program as provided for in the NCP. The mitigation measures approved for inclusion in the NCP are as follows:

- Continued funding for eligible single family parcels within the NEM
- Eligibility for Multi-Family properties within the NEM
- Development of an Avigation Easement purchase option.
- Elimination of certain items previously identified in the NCP as mitigation measures that have been completed or that are no longer applicable.

As referenced above, the RATP is funded by Airport Improvement Program ("AIP") grants<sup>2</sup> from the federal government, the Authority's Passenger Facility Charge ("PFC") program,<sup>3</sup> and Authority funds. Incorporating the revised NEM, the remaining eligible properties within the current 2<sup>nd</sup> Quarter 2017 - 65 CNEL boundary area are as

<sup>&</sup>lt;sup>2</sup> The federal AIP program is administered by the FAA and is intended to provide airports with grant funds for various FAA-approved programs. The Authority has received, as of the close of the 3nd quarter 2015, \$82,677,619 in AIP grants for acoustic treatment of homes of which \$9,659,010 was for the acoustic treatment of four schools. This level of grant commitment represents 80% AIP funding of the costs for insulating approximately 2,445 homes; additionally the authority insulated four schools.

<sup>&</sup>lt;sup>3</sup> The PFC program is based on federal law that allows collection of a fixed fee from each enplaned air carrier passenger using the Airport. The fees collected are intended for the purpose of improving airport infrastructure and mitigating environmental impacts of airport operations. The Authority is authorized to collect \$4.50 PFC per enplaned passenger. A significant portion of current and future PFC funds is now being earmarked for various security and infrastructure projects at the Airport.

2 <sup>nd</sup> Quarter 2017 – 65 dB CNEL					
	Total Units Completed In Construction			Not Treated	
Single-Family	270	215	0	55	
Multi-Family	31	26	0	5	
Total	301	241	0	60	

follows:

Of the 60 units that have not been treated, the Authority has offered the RATP benefits to all of these property owners; 15 have reported that they may have future interest but not at this time, 20 are not able to participate due to code deficiencies, 11 have indicated they are not interested in participating, and 14 have failed to respond to repeated outreach efforts. Under the new program, multi-family residences will be eligible to participate. Additionally, the new program will offer an Avigation Easement Purchase option.

The Authority's PFC plan was approved by the FAA and limits the amount of PFC funding for RATP funding to a maximum of 50% of the total project cost. This PFC plan was approved by the FAA to permit fee collection over a multi-year period to use PFC funds to implement various noise mitigation projects. The Authority's intention has been to conform to its RATP to maximize FAA funding. The FAA previously modified its program guidance to require that AIP funds be prioritized for use in treating the most noise-affected homes inside the 65 CNEL forecasted contour. The Authority's share of future AIP funds will be contingent on the federal budget process. The FAA allocates AIP grants to 429 commercial air carrier airports nationwide based on federal appropriations.

The rate at which homes will be acoustically treated through the RATP depends on future AIP grant levels, the amount of PFC funds collected and not earmarked for other security or infrastructure purposes, and construction costs. In the last few years, the Authority experienced a considerable increase in the, per unit costs of residential acoustical treatment, due to higher building materials and labor costs that are reflected in contractors' bids. These increased costs are consistent with a nationwide trend.

# STATUS OF INDIVIDUAL ELEMENTS OF AUTHORITY'S NOISE IMPACT AREA REDUCTION PLAN

NOISE MITIGATION MEASURES						
MEASURE	STATUS					
1. Continue existing acoustical treatment program for single-family homes.	As of June 30, 2017, Acoustical treatment of 2, 445 units is completed.					
2. Acquisition of avigation easements over land within the 65 + CNEL contour (prior program eligibility area and as currently amended with 2013 NEM)	As of June 30, 2017 a total of 2,179 Avigation Easements have been acquired.					
3. Continue as needed acoustical treatment program for schools and preschools not previously treated within 65 CNEL contour.	Completed.					

4. Continue noise abatement information program.	Ongoing. Airport Monitoring & Flight Tracking System accessible via airport website introduced March 2003. A newer upgraded Flight Tracking System (WebTrak) was introduced to the public via airport website on December 2014. In September 2004 noise abatement information was painted on the Runway 15 blast fence advising pilots of Voluntary Curfew hours and to "Fly Quietly." Information also was posted at fixed based operations facilities. Illuminated fly quietly information was installed at each aircraft carrier parking gate.	
5. Monitor log of nighttime runway use and operations by aircraft type.	Ongoing.	
NOISE ABATEMENT MEASURES		
MEASURE	STATUS	
1. Continue requiring compliance with Airport's Engine Test Run-up Policy.	Ongoing.	
2. Continue promoting use of AC 91-53A Noise Abatement Departure Procedure by air carrier jets.	Ongoing.	
3. Continue promoting use of NBAA noise abatement procedures, or equivalent manufacture procedure, by general	Ongoing.	

# THE BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY'S UPDATE REGARDING ITS NOISE IMPACT AREA REDUCTION PLAN THIRD QUARTER 2017

Pursuant to the California Department of Transportation's ("Caltrans") February 28, 2008 decision granting the Burbank-Glendale-Pasadena Airport Authority ("Authority") a variance ("Variance") from the requirements of Section 5012 of the California Noise Standards, Title 21 California Code of Regulations, §§ 5000 <u>et seq.</u>, ("Noise Standards"), effective March 29, 2008 (the "Decision"), the Authority provides the following update regarding the Hollywood Burbank Airport's ("Airport") Noise Impact Area Reduction Plan ("Plan").

## SUMMARY OF MAJOR PLAN ACCOMPLISHMENTS SINCE THE GRANT OF THE CURRENT VARIANCE

• The Airport's Noise Impact Area for the third quarter 2017, as defined by the Noise Standards, was 8.14 acres of incompatible land within the 65 dB contour, which represents no changes from the previous quarter.<sup>1</sup> The Noise Impact Area at the time the Authority's current variance was granted was 60.84 acres.

• As of September 30, 2017, the Authority has completed the acoustical treatment of 2,445 residences as part of its Residential Acoustical Treatment Program ("RATP"), and there are no units under construction, design phase or pending signing of the RATP participation agreement. (For a discussion of approved funding for future acoustical treatment, please see separate section entitled "Report Regarding Approved Funding for Future Acoustical Treatment" below.)

<sup>&</sup>lt;sup>1</sup> The noise impact area has been calculated using 2014 master contour.

## SPECIFIC MEASURES TAKEN BY THE AUTHORITY IN THE PAST QUARTER

- During the quarter staff responded to 168 noise complaints from 67 callers, more from the same period in 2016 when 110 noise complaints were filed from 29 callers.
- During the quarter staff sent 7 notices to operators for suspected noise rule violations, an increase of 1 from last quarter and 3 more from the same period in 2016.

#### **AUTHORITY'S EFFORTS TO OBTAIN MANDATORY CURFEW**

The Airport Authority, on February 2, 2009, as required by the Airport Noise and Capacity Act of 1990 ("ANCA"), submitted pursuant to 14 C.F.R. Part 161 its Part 161 Application to the FAA, seeking approval by the FAA of the imposition of a mandatory full nighttime curfew at the Airport between the hours of 10:00 p.m. through 6:59 a.m. Accompanying the Application, the Authority submitted documentation in support of a finding that the proposed full mandatory curfew in the Application qualifies for a "categorical exclusion" under the National Environmental Policy Act.

As noted in the report for the Third Quarter of 2009, by letter dated October 30, 2009, the FAA announced that it had denied the Authority's Part 161 Application seeking FAA approval for the imposition of a full mandatory nighttime curfew at the Airport. The FAA's decision indicated that it did not find that the Application satisfied four of the six statutory conditions required for a restriction to be approved under Part 161, and that it viewed the ongoing acoustical treatment program at the Airport as the viable method for addressing the Airport's noise problems.

## REPORT ON APPROVED FUNDING FOR FUTURE ACOUSTICAL TREATMENT

The RATP program is an approved mitigation measure contained in both the Authority's second and third Part 150 Studies approved by the FAA in 2000 2016. The Authority has now completed and submitted a pre-application to the FAA for grant funding to continue the program as provided for in the NCP. The mitigation measures approved for inclusion in the NCP are as follows:

- Continued funding for eligible single family parcels within the NEM
- Eligibility for Multi-Family properties within the NEM
- Development of an Avigation Easement purchase option.
- Elimination of certain items previously identified in the NCP as mitigation measures that have been completed or that are no longer applicable.

As referenced above, the RATP is funded by Airport Improvement Program

("AIP") grants<sup>2</sup> from the federal government, the Authority's Passenger Facility Charge ("PFC") program,<sup>3</sup> and Authority funds. Incorporating the revised NEM, the remaining eligible properties within the current 3<sup>rd</sup> Quarter 2017 - 65 CNEL boundary area are as

<sup>&</sup>lt;sup>2</sup> The federal AIP program is administered by the FAA and is intended to provide airports with grant funds for various FAA-approved programs. The Authority has received, as of the close of the 3nd quarter 2015, \$82,677,619 in AIP grants for acoustic treatment of homes of which \$9,659,010 was for the acoustic treatment of four schools. This level of grant commitment represents 80% AIP funding of the costs for insulating approximately 2,445 homes; additionally the authority insulated four schools.

<sup>&</sup>lt;sup>3</sup> The PFC program is based on federal law that allows collection of a fixed fee from each enplaned air carrier passenger using the Airport. The fees collected are intended for the purpose of improving airport infrastructure and mitigating environmental impacts of airport operations. The Authority is authorized to collect \$4.50 PFC per enplaned passenger. A significant portion of current and future PFC funds is now being earmarked for various security and infrastructure projects at the Airport.

3 <sup>rd</sup> Quarter 2017 – 65 dB CNEL				
	Total Units	Completed	In Construction	Not Treated
Single-Family	277	222	0	55
Multi-Family	31	26	0	5
Total	308	248	0	60

follows:

Of the 60 units that have not been treated, the Authority has offered the RATP benefits to all of these property owners; 15 have reported that they may have future interest but not at this time, 20 are not able to participate due to code deficiencies, 11 have indicated they are not interested in participating, and 14 have failed to respond to repeated outreach efforts. Under the new program, multi-family residences will be eligible to participate. Additionally, the new program will offer an Avigation Easement Purchase option.

The Authority's PFC plan was approved by the FAA and limits the amount of PFC funding for RATP funding to a maximum of 50% of the total project cost. This PFC plan was approved by the FAA to permit fee collection over a multi-year period to use PFC funds to implement various noise mitigation projects. The Authority's intention has been to conform to its RATP to maximize FAA funding. The FAA previously modified its program guidance to require that AIP funds be prioritized for use in treating the most noise-affected homes inside the 65 CNEL forecasted contour. The Authority's share of future AIP funds will be contingent on the federal budget process. The FAA allocates AIP grants to 429 commercial air carrier airports nationwide based on federal appropriations.

The rate at which homes will be acoustically treated through the RATP depends on future AIP grant levels, the amount of PFC funds collected and not earmarked for other security or infrastructure purposes, and construction costs. In the last few years, the Authority experienced a considerable increase in the per unit costs of residential acoustical treatment due to higher building materials and labor costs that are reflected in contractors' bids. These increased costs are consistent with a nationwide trend.

# STATUS OF INDIVIDUAL ELEMENTS OF AUTHORITY'S NOISE IMPACT AREA REDUCTION PLAN

NOISE MITIGATION MEASURES		
MEASURE	STATUS	
1. Continue existing acoustical treatment program for single-family homes.	As of September 30, 2017, Acoustical treatment of 2, 445 units is completed.	
2. Acquisition of avigation easements over land within the 65 + CNEL contour (prior program eligibility area and as currently amended with 2013 NEM)	As of September 30, 2017 a total of 2,179 Avigation Easements have been acquired.	
3. Continue as needed acoustical treatment program for schools and preschools not previously treated within 65 CNEL contour.	Completed.	

4. Continue noise abatement information program.	Ongoing. Airport Monitoring & Flight Tracking System accessible via airport website introduced March 2003. A newer upgraded Flight Tracking System (WebTrak) was introduced to the public via airport website on December 2014. In September 2004 noise abatement information was painted on the Runway 15 blast fence advising pilots of Voluntary Curfew hours and to "Fly Quietly." Information also was posted at fixed based operations facilities. Illuminated fly quietly information was installed at each aircraft carrier parking gate.	
5. Monitor log of nighttime runway use and operations by aircraft type.	Ongoing.	
NOISE ABATEMENT MEASURES		
MEASURE	STATUS	
1. Continue requiring compliance with Airport's Engine Test Run-up Policy.	Ongoing.	
2. Continue promoting use of AC 91-53A Noise Abatement Departure Procedure by air carrier jets.	Ongoing.	
3. Continue promoting use of NBAA noise abatement procedures, or equivalent manufacture	Ongoing.	

# THE BURBANK-GLENDALE-PASADENA AIRPORT AUTHORITY'S UPDATE REGARDING ITS NOISE IMPACT AREA REDUCTION PLAN FOURTH QUARTER 2017

Pursuant to the California Department of Transportation's ("Caltrans") February 28, 2008 decision granting the Burbank-Glendale-Pasadena Airport Authority ("Authority") a variance ("Variance") from the requirements of Section 5012 of the California Noise Standards, Title 21 California Code of Regulations, §§ 5000 <u>et seq.</u>, ("Noise Standards"), effective March 29, 2008 (the "Decision"), the Authority provides the following update regarding the Hollywood Burbank Airport's ("Airport") Noise Impact Area Reduction Plan ("Plan").

## SUMMARY OF MAJOR PLAN ACCOMPLISHMENTS SINCE THE GRANT OF THE CURRENT VARIANCE

• The Airport's Noise Impact Area for the fourth quarter 2017, as defined by the Noise Standards, was 7.90 acres of incompatible land within the 65 dB contour a 3.0% decrease from the previous quarter of 8.14 acres.<sup>1</sup> The Noise Impact Area at the time the Authority's current variance was granted was 60.84 acres.

• As of December 31, 2017, the Authority has completed the acoustical treatment of 2,445 residences as part of its Residential Acoustical Treatment Program ("RATP"), and there are no units under construction, design phase or pending signing of the RATP participation agreement. (For a discussion of approved funding for future acoustical treatment, please see separate section entitled "Report Regarding Approved Funding for Future Acoustical Treatment" below.)

<sup>&</sup>lt;sup>1</sup> The noise impact area has been calculated using updated master contours beginning in the second quarter of 2009.

## SPECIFIC MEASURES TAKEN BY THE AUTHORITY IN THE PAST QUARTER

- During the quarter, staff responded to 943 noise complaints from 67 callers, more from the same period in 2016 when 111 noise complaints were filed from 62 callers. Of the 943 total complaints, 768 complaints were from 6 callers. Residents in both Burbank and Studio City were primarily concerned with the Federal Aviation Administration's implementation of the NextGen.
- During the quarter, staff sent 5 notices to general aviation operators for suspected noise rule violations, an increase of 2 from last quarter and a decrease of 4 from the same period in 2016.

## **AUTHORITY'S PRIOR EFFORTS TO OBTAIN MANDATORY CURFEW**

The Airport Authority, on February 2, 2009, as required by the Airport Noise and Capacity Act of 1990 ("ANCA"), submitted pursuant to 14 C.F.R. Part 161 its Part 161 Application to the FAA, seeking approval by the FAA of the imposition of a mandatory full nighttime curfew at the Airport between the hours of 10:00 p.m. through 6:59 a.m. Accompanying the Application, the Authority submitted documentation in support of a finding that the proposed full mandatory curfew in the Application qualifies for a "categorical exclusion" under the National Environmental Policy Act.

As noted in the report for the Third Quarter of 2009, by letter dated October 30, 2009, the FAA announced that it had denied the Authority's Part 161 Application seeking FAA approval for the imposition of a full mandatory nighttime curfew at the Airport. The FAA's decision indicated that it did not find that the Application satisfied four of the six statutory conditions required for a restriction to be approved under Part 161, and that it viewed the ongoing acoustical treatment program at the Airport as the viable method for addressing the Airport's noise problems.

## REPORT ON APPROVED FUNDING FOR FUTURE ACOUSTICAL TREATMENT

The RATP program is an approved mitigation measure contained in both the Authority's second and third Part 150 Studies approved by the FAA in 2000 2016. The Authority has now completed and submitted a pre-application to the FAA for grant funding to continue the program as provided for in the NCP. The mitigation measures approved for inclusion in the NCP are as follows:

- Continued funding for eligible single family parcels within the NEM
- Eligibility for Multi-Family properties within the NEM
- Development of an Avigation Easement purchase option.
- Elimination of certain items previously identified in the NCP as mitigation measures that have been completed or that are no longer applicable.

As referenced above, the RATP is funded by Airport Improvement Program ("AIP") grants<sup>2</sup> from the federal government, the Authority's Passenger Facility Charge ("PFC") program,<sup>3</sup> and Authority funds. Incorporating the revised NEM, the remaining

<sup>&</sup>lt;sup>2</sup> The federal AIP program is administered by the FAA and is intended to provide airports with grant funds for various FAA-approved programs. The Authority has received, as of the close of the 3nd quarter 2015, \$82,677,619 in AIP grants for acoustic treatment of homes of which \$9,659,010 was for the acoustic treatment of four schools. This level of grant commitment represents 80% AIP funding of the costs for insulating approximately 2,445 homes; additionally the authority insulated four schools.

<sup>&</sup>lt;sup>3</sup> The PFC program is based on federal law that allows collection of a fixed fee from each enplaned air carrier passenger using the Airport. The fees collected are intended for the purpose of improving airport infrastructure and mitigating environmental impacts of airport operations. The Authority is authorized to collect \$4.50 PFC per enplaned passenger. A significant portion of current and future PFC funds is now being earmarked for various security and infrastructure projects at the Airport.

4 <sup>th</sup> Quarter 2017 – 65 dB CNEL				
	Total Units	Completed	In Construction	Not Treated
Single-Family	268	214	0	54
Multi-Family	31	26	0	5
Total	299	240	0	59

eligible properties within the current 4<sup>th</sup> Quarter 2017 - 65 CNEL boundary area are as follows:

Of the 59 units that have not been treated, the Authority has offered the RATP benefits to all of these property owners; 15 have reported that they may have future interest but not at this time, 20 are not able to participate due to code deficiencies, 10 have indicated they are not interested in participating, and 14 have failed to respond to repeated outreach efforts. Under the new program, multi-family residences will be eligible to participate. Additionally, the new program will offer an Avigation Easement Purchase option.

The Authority's PFC plan was approved by the FAA and limits the amount of PFC funding for RATP funding to a maximum of 50% of the total project cost. This PFC plan was approved by the FAA to permit fee collection over a multi-year period to use PFC funds to implement various noise mitigation projects. The Authority's intention has been to conform to its RATP to maximize FAA funding. The FAA previously modified its program guidance to require that AIP funds be prioritized for use in treating the most noise-affected homes inside the 65 CNEL forecasted contour. The Authority's share of future AIP funds will be contingent on the federal budget process. The FAA allocates AIP grants to 429 commercial air carrier airports nationwide based on federal appropriations.

The rate at which homes will be acoustically treated through the RATP depends on future AIP grant levels, the amount of PFC funds collected and not earmarked for other security or infrastructure purposes, and construction costs. In the last few years, the Authority experienced a considerable increase in the per unit costs of residential acoustical treatment due to higher building materials and labor costs that are reflected in contractors' bids. These increased costs are consistent with a nationwide trend.

# STATUS OF INDIVIDUAL ELEMENTS OF AUTHORITY'S NOISE IMPACT AREA REDUCTION PLAN

NOISE MITIGATION MEASURES		
MEASURE	STATUS	
1. Continue existing acoustical treatment program for single-family homes.	As of December 31, 2017, Acoustical treatment of 2, 445 units is completed.	
2. Acquisition of avigation easements over land within the 65 + CNEL contour (prior program eligibility area and as currently amended with 2013 NEM)	As of December 31, 2017 a total of 2,179 Avigation Easements have been acquired.	
3. Continue as needed acoustical treatment program for schools and preschools not previously treated within 65 CNEL contour.	Completed.	

4. Continue noise abatement information program.	Ongoing. Airport Monitoring & Flight Tracking System accessible via airport website introduced March 2003. A newer upgraded Flight Tracking System (WebTrak) was introduced to the public via airport website on December 2014. In September 2004 noise abatement information was painted on the Runway 15 blast fence advising pilots of Voluntary Curfew hours and to "Fly Quietly." Information also was posted at fixed based operations facilities. Illuminated fly quietly information was installed at each aircraft carrier parking gate.	
5. Monitor log of nighttime runway use and operations by aircraft type.	Ongoing.	
NOISE ABATEMENT MEASURES		
MEASURE	STATUS	
1. Continue requiring compliance with Airport's Engine Test Run-up Policy.	Ongoing.	
2. Continue promoting use of AC 91-53A Noise Abatement Departure Procedure by air carrier jets.	Ongoing.	
3. Continue promoting use of NBAA noise abatement procedures, or equivalent manufacture	Ongoing.	